

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: IMLER, Jean-Luc
MEHTALI, Majid
PAVIRANI, Andrea
- (ii) TITLE OF INVENTION: DEFECTIVE ADENOVIRUSES AND CORRESPONDING
COMPLEMENTATION LINES
- (iii) NUMBER OF SEQUENCES: 43
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: BURNS, DOANE, SWECKER & MATHIS, L.L.P.
 - (B) STREET: 1737 King Street, Suite 500
 - (C) CITY: Alexandria
 - (D) STATE: Virginia
 - (E) COUNTRY: United States
 - (F) ZIP: 22314-2756
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 08/379,452
 - (B) FILING DATE: 26-JAN-1995
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: WO PCT/FR94/00624
 - (B) FILING DATE: 27-MAY-1994
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: FR 93 06482
 - (B) FILING DATE: 28-MAY-1993
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Dadio, Susan M.
 - (B) REGISTRATION NUMBER: 40,373
 - (C) REFERENCE/DOCKET NUMBER: 029395-002

(2) INFORMATION FOR SEQ ID NO: 1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG4174)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

GTGACGTCTT TGGTGTTTTC GCGGGAAAAC

30

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG4173)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

ACCGAGTAAG ATTTGTCTAG GGCCGCGGGG

30

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 33 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG4191)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GGCCATGGTC GCGGGAAAGG GACTTTGACC GTT

33

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5021)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

GAACGGATCC CCAGACTCTG TTTGGATTTG G

31

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5157)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

CCAGAAATAT CTTGCCCCAG GCCGCCGCC

30

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5564)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

GATCCGATAT CCCGTTAACC

20

(2) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5565)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GATCGGTAA CGGGATATCG

20

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 47 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5892)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

GTCGTAGGAT CCAGCTGCTC CCTGCTTGTG TGTTGGAGGT CGCTGAG

47

(2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 47 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (OTG5893)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

GTAGCTGACG TCCCAGGTGC ACACCAATGT GGTGAATGGT CAAATGG

47

(2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 46 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (OTG5920)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

ACGGTAGGAT CCGACGTCGG TGAGCTCCTC GCTTGGTCTC CGTCCG

46

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5891)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

CAACCCCGAT TCTAGAGAAA CCTG

24

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6079)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

GCGCAGTTGC TCTGCGGATC CACTTAACAT TCAGT

35

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 38 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6080)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

TAAAAGTACC AGGTAAGGAT CCCCTTGGTT TGCTTGGG

38

(2) INFORMATION FOR SEQ ID NO: 14:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (iii) ANTISENSE: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG6064)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

GAAACCGAAT TCTCTTGGA C

21

(2) INFORMATION FOR SEQ ID NO: 15:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 32 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (iii) ANTISENSE: YES
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG6065)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

ACGAATGCAG CTCTCCACTT AACATTCA GT CG

32

(2) INFORMATION FOR SEQ ID NO: 16:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (iii) ANTISENSE: YES

- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG5481)

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CAGTGAATTC ATCATCAATA ATATACC

27

- (2) INFORMATION FOR SEQ ID NO: 17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 24 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: DNA (genomic)

- (iii) HYPOTHETICAL: NO

- (iii) ANTISENSE: NO

- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG5482)

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

AAACTGGTCA CCGTGATTAA AAAG

24

- (2) INFORMATION FOR SEQ ID NO: 18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: DNA (genomic)

- (iii) HYPOTHETICAL: NO

- (iii) ANTISENSE: NO

- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG5455)

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

ATCGGAATTC AAGATGATTA GGTAC

25

- (2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5456)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

ATCGTCTAGA TTAAGGCATT TTCTTTTC

28

(2) INFORMATION FOR SEQ ID NO: 20:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5728)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

TGTAGCAGGA GGACTAAG

18

(2) INFORMATION FOR SEQ ID NO: 21:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5729)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

CCGCATTAAT TAACCGCGAC AAACGATTCT TTATTCTTG

39

(2) INFORMATION FOR SEQ ID NO: 22:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (5730)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

CGCGGTTAAT TAATGCGGTA AAACCTACGT CACCCG

36

(2) INFORMATION FOR SEQ ID NO: 23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (OTG6060)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

AATAAAAGAT CATTATTTTC ATTAGAACTG

30

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6061)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

TGTGTTGGTT TTTTGTGTGT TAAT

24

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6062)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

TAACACACAA AAAACCAACA CACAGTTCTA

30

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6063)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

ATGAAAATAA TGATCTTTTA TTAT

24

(2) INFORMATION FOR SEQ ID NO: 27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (OTG4564)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

TCCGTGAATT CTAGTAGTGT GCGGGAAGTG TG

32

(2) INFORMATION FOR SEQ ID NO: 28:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide (OTG4565)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

TCCAGTCCGG AGAACCGGGC GCC

23

(2) INFORMATION FOR SEQ ID NO: 29:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5013)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

TAACCTGCAG GAGTGCCAGC GAGTAGAG

28

(2) INFORMATION FOR SEQ ID NO: 30:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Oligonucleotide de synthese (OTG5015)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CAACGCGCAT GCCCCCATGG G

21

(2) INFORMATION FOR SEQ ID NO: 31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5014)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

TAGGAGATCT GTTTTAAACC GCATTGGGAG G

31

(2) INFORMATION FOR SEQ ID NO: 32:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

CGGAGTACTG TCCTCCGCGG AGTACTGTCC TCCG

34

(2) INFORMATION FOR SEQ ID NO: 33:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

- (A) ORGANISM: Synthetic oligonucleotide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

CGGAGGACAG TACTCCGCGG AGGACAGTAC TCCG

34

(2) INFORMATION FOR SEQ ID NO: 34:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5039)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

TGCTGGATAT CAGTCA

16

(2) INFORMATION FOR SEQ ID NO: 35:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5040)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

GATCTGACTG ATATCCAGCA TGCA

24

(2) INFORMATION FOR SEQ ID NO: 36:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5024)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

CTCCTGCCTA GGCAAAATAG

20

(2) INFORMATION FOR SEQ ID NO: 37:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 base pairs

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5025)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GCAGATGGAT CCGGGCGGAG TAACTTGTAT GT

32

(2) INFORMATION FOR SEQ ID NO: 38:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5078)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

GTCGCGGATC CGTTATGTTT CAACGTGTTT A

31

(2) INFORMATION FOR SEQ ID NO: 39:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: YES

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Oligonucleotide de synthese (OTG5079)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

ACATGAACTT AAGCGAGCTG

20

(2) INFORMATION FOR SEQ ID NO: 40:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG5991)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

CACGGCACCA GCTCAAGTTA ACGGATCCAT CTGCGGGT

38

(2) INFORMATION FOR SEQ ID NO: 41:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

(iii) ANTISENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Synthetic oligonucleotide (OTG6141)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GATCCTGTGT GTTGGTTTTT TGTGTGC

27

(2) INFORMATION FOR SEQ ID NO: 42:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (iii) ANTISENSE: YES
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Synthetic oligonucleotide (OTG6142)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

GATCGCACAC AAAAAACCAA CACACAG

27

(2) INFORMATION FOR SEQ ID NO:43:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 35935 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

CATCATCAAT AATATACCTT ATTTTGGATT GAAGCCAATA TGATAATGAG GGGGTGGAGT	60
TTGTGACGTG GCGCGGGGCG TGGGAACGGG GCGGGTGACG TAGTAGTGTG GCGGAAGTGT	120
GATGTTGCAA GTGTGGCGGA ACACATGTAA GCGACGGATG TGGCAAAAGT GACGTTTTTG	180
GTGTGCGCCG GTGTACACAG GAAGTGACAA TTTTCGCGCG GTTTTAGGCG GATGTTGTAG	240
TAAATTTGGG CGTAACCGAG TAAGATTTGG CCATTTTCGC GGGAAACTG AATAAGAGGA	300
AGTGAAATCT GAATAATTTT GTGTTACTCA TAGCGCGTAA TATTGTCTA GGGCCGCGGG	360
GACTTTGACC GTTTACGTGG AGACTCGCCC AGGTGTTTTT CTCAGGTGTT TTCCGCGTTC	420
CGGGTCAAAG TTGGCGTTTT ATTATTATAG TCAGCTGACG TGTAGTGTAT TTATACCCGG	480
TGAGTTCCTC AAGAGGCCAC TCTTGAGTGC CAGCGAGTAG AGTTTTCTCC TCCGAGCCGC	540
TCCGACACCG GGA CTGAAAA TGAGACATAT TATCTGCCAC GGAGGTGTTA TTACCGAAGA	600
AATGGCCGCC AGTCTTTTGG ACCAGCTGAT CGAAGAGGTA CTGGCTGATA ATCTTCCACC	660
TCCTAGCCAT TTTGAACCAC CTACCCTTCA CGAACTGTAT GATTAGACG TGACGGCCCC	720
CGAAGATCCC AACGAGGAGG CGGTTTCGCA GATTTTTCCT GACTCTGTAA TGTTGGCGGT	780
GCAGGAAGGG ATTGACTTAC TCACTTTTCC GCCGGCGCCC GGTTCCTCCG AGCCGCCTCA	840
CCTTTCCCGG CAGCCCGAGC AGCCGGAGCA GAGAGCCTTG GGTCCGGTTT CTATGCCAAA	900
CCTTGATCCG GAGGTGATCG ATCTTACCTG CCACGAGGCT GGCTTTCCAC CCAGTGACGA	960

CGAGGATGAA	GAGGGTGAGG	AGTTTGTGTT	AGATTATGTG	GAGCACCCCG	GGCACGGTTG	1020
CAGGTCTTGT	CATTATCACC	GGAGGAATAC	GGGGGACCCA	GATATTATGT	GTTTCGCTTTG	1080
CTATATGAGG	ACCTGTGGCA	TGTTTGTCTA	CAGTAAGTGA	AAATTATGGG	CAGTGGGTGA	1140
TAGAGTGGTG	GGTTTGGTGT	GGTAATTTTT	TTTTTAATTT	TTACAGTTTT	GTGGTTTAAA	1200
GAATTTTGTA	TTGTGATTTT	TTTAAAAGGT	CCTGTGTCTG	AACCTGAGCC	TGAGCCCGAG	1260
CCAGAACCGG	AGCCTGCAAG	ACCTACCCGC	CGTCCTAAAA	TGGCGCCTGC	TATCCTGAGA	1320
CGCCCGACAT	CACCTGTGTC	TAGAGAAATGC	AATAGTAGTA	CGGATAGCTG	TGACTCCGGT	1380
CCTTCTAACA	CACCTCCTGA	GATACACCCG	GTGGTCCCGC	TGTGCCCCAT	TAAACCAAGT	1440
GCCGTGAGAG	TTGGTGCGG	TCGCCAGGCT	GTGGAATGTA	TCGAGGACTT	GCTTAACGAG	1500
CCTGGGCAAC	CTTTGGACTT	GAGCTGTAAA	CGCCCCAGGC	CATAAGGTGT	AAACCTGTGA	1560
TTGCGTGTGT	GGTTAACGCC	TTTGTGCT	GAATGAGTTG	ATGTAAGTTT	AATAAAGGGT	1620
GAGATAATGT	TTAACTTGCA	TGGCGTGTTA	AATGGGGCGG	GGCTTAAAGG	GTATATAATG	1680
CGCCGTGGGC	TAATCTTGGT	TACATCTGAC	CTCATGGAGG	CTTGGGAGTG	TTTGGAAGAT	1740
TTTTCTGCTG	TGCGTAACTT	GCTGGAACAG	AGCTCTAACA	GTACCTCTTG	GTTTTGGAGG	1800
TTTCTGTGGG	GCTCATCCCA	GGCAAAGTTA	GTCTGCAGAA	TTAAGGAGGA	TTACAAGTGG	1860
GAATTTGAAG	AGCTTTTGAA	ATCCTGTGGT	GAGCTGTTTG	ATTCTTTGAA	TCTGGGTCAC	1920
CAGGCGCTTT	TCCAAGAGAA	GGTCATCAAG	ACTTTGGATT	TTTCCACACC	GGGGCGCGCT	1980
GCGGCTGCTG	TTGCTTTTTT	GAGTTTTATA	AAGGATAAAT	GGAGCGAAGA	AACCCATCTG	2040
AGCGGGGGGT	ACCTGCTGGA	TTTCTGGCC	ATGCATCTGT	GGAGAGCGGT	TGTGAGACAC	2100
AAGAATCGCC	TGCTACTGTT	GTCTTCCGTC	CGCCCGGCGA	TAATACCGAC	GGAGGAGCAG	2160
CAGCAGCAGC	AGGAGGAAGC	CAGGCGGCGG	CGGCAGGAGC	AGAGCCCATG	GAACCCGAGA	2220
GCCGGCCTGG	ACCCTCGGGA	ATGAATGTTG	TACAGGTGGC	TGAACTGTAT	CCAGAACTGA	2280
GACGCATTTT	GACAATTACA	GAGGATGGGC	AGGGGCTAAA	GGGGGTAAAG	AGGGAGCGGG	2340
GGGCTTGTGA	GGCTACAGAG	GAGGCTAGGA	ATCTAGCTTT	TAGCTTAATG	ACCAGACACC	2400
GTCCTGAGTG	TATTACTTTT	CAACAGATCA	AGGATAATTG	CGCTAATGAG	CTTGATCTGC	2460
TGGCGCAGAA	GTATTCCATA	GAGCAGCTGA	CCACTTACTG	GCTGCAGCCA	GGGGATGATT	2520
TTGAGGAGGC	TATTAGGGTA	TATGCAAAGG	TGGCACTTAG	GCCAGATTGC	AAGTACAAGA	2580
TCAGCAAAC	TGTAAATATC	AGGAATTGTT	GCTACATTTT	TGGGAACGGG	GCCGAGGTGG	2640
AGATAGATAC	GGAGGATAGG	GTGGCCTTTA	GATGTAGCAT	GATAAATATG	TGGCCGGGGG	2700
TGCTTGGCAT	GGACGGGGTG	GTTATTATGA	ATGTAAGGTT	TACTGGCCCC	AATTTTAGCG	2760
GTACGGTTTT	CCTGGCCAAT	ACCAACCTTA	TCCTACACGG	TGTAAGCTTC	TATGGGTTTA	2820

ACAATACCTG	TGTGGAAGCC	TGGACCGATG	TAAGGGTTCG	GGGCTGTGCC	TTTTACTGCT	2880
GCTGGAAGGG	GGTGGTGTGT	CGCCCCAAAA	GCAGGGCTTC	AATTAAGAAA	TGCCTCTTTG	2940
AAAGGTGTAC	CTTGGGTATC	CTGTCTGAGG	GTAACCTCCAG	GGTGCGCCAC	AATGTGGCCT	3000
CCGACTGTGG	TTGCTTCATG	CTAGTGAAAA	GCGTGGCTGT	GATTAAGCAT	AACATGGTAT	3060
GTGGCAACTG	CGAGGACAGG	GCCTCTCAGA	TGCTGACCTG	CTCGGACGGC	AACTGTCACC	3120
TGCTGAAGAC	CATTCACGTA	GCCAGCCACT	CTCGCAAGGC	CTGGCCAGTG	TTTGAGCATA	3180
ACATACTGAC	CCGCTGTTCC	TTGCATTTGG	GTAACAGGAG	GGGGGTGTTC	CTACCTTACC	3240
AATGCAATTT	GAGTCACACT	AAGATATTGC	TTGAGCCCGA	GAGCATGTCC	AAGGTGAACC	3300
TGAACGGGGT	GTTTGACATG	ACCATGAAGA	TCTGGAAGGT	GCTGAGGTAC	GATGAGACCC	3360
GCACCAGGTG	CAGACCCTGC	GAGTGTGGCG	GTAAACATAT	TAGGAACCAG	CCTGTGATGC	3420
TGGATGTGAC	CGAGGAGCTG	AGGCCCGATC	ACTTGGTGCT	GGCCTGCACC	CGCGCTGAGT	3480
TTGGCTCTAG	CGATGAAGAT	ACAGATTGAG	GTAAGTAAAT	GTGTGGGCGT	GGCTTAAGGG	3540
TGGGAAAGAA	TATATAAGGT	GGGGGTCTTA	TGTAGTTTTG	TATCTGTTTT	GCAGCAGCCG	3600
CCGCCGCCAT	GAGCACCAAC	TCGTTTGATG	GAAGCATTGT	GAGCTCATAT	TTGACAACGC	3660
GCATGCCCCC	ATGGGCCGGG	GTGCGTCAGA	ATGTGATGGG	CTCCAGCATT	GATGGTCGCC	3720
CCGTCCTGCC	CGCAAACCTCT	ACTACCTTGA	CCTACGAGAC	CGTGTCTGGA	ACGCCGTTGG	3780
AGACTGCAGC	CTCCGCCGCC	GCTTCAGCCG	CTGCAGCCAC	CGCCCGCGGG	ATTGTGACTG	3840
ACTTTGCTTT	CCTGAGCCCCG	CTTGCAAGCA	GTGCAGCTTC	CCGTTTCATCC	GCCCGCGATG	3900
ACAAGTTGAC	GGCTCTTTTG	GCACAATTGG	ATTCTTTGAC	CCGGGAACCT	AATGTCGTTT	3960
CTCAGCAGCT	GTTGGATCTG	CGCCAGCAGG	TTTCTGCCCT	GAAGGCTTCC	TCCCCTCCCA	4020
ATGCGGTTTA	AAACATAAAT	AAAAAACCAG	ACTCTGTTTG	GATTTGGATC	AAGCAAGTGT	4080
CTTGCTGTCT	TTATTTAGGG	GTTTTGCGCG	CGCGGTAGGC	CCGGGACCAG	CGGTCTCGGT	4140
CGTTGAGGGT	CCTGTGTATT	TTTTCCAGGA	CGTGGTAAAG	GTGACTCTGG	ATGTTTCAGAT	4200
ACATGGGCAT	AAGCCCCTCT	CTGGGGTGGA	GGTAGCACCA	CTGCAGAGCT	TCATGCTGCC	4260
GGGTGGTGTT	GTAGATGATC	CAGTCGTAGC	AGGAGCGCTG	GGCGTGGTGC	CTAAAAATGT	4320
CTTTTCAGTAG	CAAGCTGATT	GCCAGGGGCA	GGCCCTTGGT	GTAAGTGTTT	ACAAAGCGGT	4380
TAAGCTGGGA	TGGGTGCATA	CGTGGGGATA	TGAGATGCAT	CTTGGACTGT	ATTTTTCAGT	4440
TGGCTATGTT	CCCAGCCATA	TCCCTCCGGG	GATTCATGTT	GTGCAGAACC	ACCAGCACAG	4500
TGTATCCGGT	GCACTTGGA	AATTTGTCAT	GTAGCTTAGA	AGGAAATGCG	TGGAAGAACT	4560
TGGAGACGCC	CTTGTGACCT	CCAAGATTTT	CCATGCATTTC	GTCCATAATG	ATGGCAATGG	4620
GCCCCACGGG	GGCGGCCTGG	GCGAAGATAT	TTCTGGGATC	ACTAACGTCA	TAGTTGTGTT	4680

CCAGGATGAG	ATCGTCATAG	GCCATTTTTTA	CAAAGCGCGG	GCGGAGGGTG	CCAGACTGCG	4740
GTATAATGGT	TCCATCCGGC	CCAGGGGCGT	AGTTACCCTC	ACAGATTTGC	ATTTCCCACG	4800
CTTTGAGTTC	AGATGGGGGG	ATCATGTCTA	CCTGCGGGGC	GATGAAGAAA	ACGGTTTCCG	4860
GGGTAGGGGA	GATCAGCTGG	GAAGAAAGCA	GGTTCCTGAG	CAGCTGCGAC	TTACCGCAGC	4920
CGGTGGGCCC	GTAAATCACA	CCTATTACCG	GGTGCAACTG	GTAGTTAAGA	GAGCTGCAGC	4980
TGCCGTCATC	CCTGAGCAGG	GGGGCCACTT	CGTTAAGCAT	GTCCCTGACT	CGCATGTTTT	5040
CCCTGACCAA	ATCCGCCAGA	AGGCGCTCGC	CGCCCAGCGA	TAGCAGTTCT	TGCAAGGAAG	5100
CAAAGTTTTT	CAACGGTTTG	AGACCGTCCG	CCGTAGGCAT	GCTTTTGAGC	GTTTGACCAA	5160
GCAGTTCCAG	GCGGTCCCAC	AGCTCGGTCA	CCTGCTCTAC	GGCATCTCGA	TCCAGCATAT	5220
CTCCTCGTTT	CGCGGGTTGG	GGCGGCTTTC	GCTGTACGGC	AGTAGTCGGT	GCTCGTCCAG	5280
ACGGGCCAGG	GTCATGTCTT	TCCACGGGCG	CAGGGTCCTC	GTCAGCGTAG	TCTGGGTCAC	5340
GGTGAAGGGG	TGCGCTCCGG	GCTGCGCGCT	GGCCAGGGTG	CGCTTGAGGC	TGGTCTTGCT	5400
GGTGCTGAAG	CGCTGCCGGT	CTTCGCCCTG	CGCGTCGGCC	AGGTAGCATT	TGACCATGGT	5460
GTCATAGTCC	AGCCCCTCCG	CGGCGTGGCC	CTTGGCGCGC	AGCTTGCCCT	TGGAGGAGGC	5520
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CTTACCTCTG	GTTTCCATGA	GCCGGTGTCC	ACGCTCGGTG	ACGAAAAGGC	TGTCCGTGTC	5760
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AAACTCGGAC	CACTCTGAGA	CAAAGGCTCG	CGTCCAGGCC	AGCACGAAGG	AGGCTAAGTG	5880
GGAGGGGTAG	CGGTCGTTGT	CCACTAGGGG	GTCCACTCGC	TCCAGGGTGT	GAAGACACAT	5940
GTCGCCCTCT	TCGGCATCAA	GGAAGGTGAT	TGGTTTGTAG	GTGTAGGCCA	CGTGACCGGG	6000
TGTTCTTGAA	GGGGGGCTAT	AAAAGGGGGT	GGGGGCGCGT	TCGTCCTCAC	TCTCTTCCGC	6060
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GGTGATGCCT	TTGAGGGTGG	CCGCATCCAT	CTGGTCAGAA	AAGACAATCT	TTTTGTTGTC	6240
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GGTTTGTTTT	TTGTCGCGAT	CGGCGCGCTC	CTTGGCCGCG	ATGTTTAGCT	GCACGTATTC	6360
GCGCGCAACG	CACCGCCATT	CGGGAAAGAC	GGTGGTGCGC	TCGTCGGGCA	CCAGGTGCAC	6420
GCGCCAACCG	CGGTTGTGCA	GGGTGACAAG	GTCAACGCTG	GTGGCTACCT	CTCCGCGTAG	6480
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AAGCGCGCGC	TCGTATGGGT	TGAGTGGGGG	ACCCCATGGC	ATGGGGTGGG	TGAGCGCGGA	6720
GGCGTACATG	CCGCAAATGT	CGTAAACGTA	GAGGGGCTCT	CTGAGTATTC	CAAGATATGT	6780
AGGGTAGCAT	CTTCCACCGC	GGATGCTGGC	GCGCACGTAA	TCGTATAGTT	CGTGCGAGGG	6840
AGCGAGGAGG	TCGGGACCGA	GGTTGCTACG	GGCGGGCTGC	TCTGCTCGGA	AGACTATCTG	6900
CCTGAAGATG	GCATGTGAGT	TGGATGATAT	GGTTGGACGC	TGGAAGACGT	TGAAGCTGGC	6960
GTCTGTGAGA	CCTACCGCGT	CACGCACGAA	GGAGGCGTAG	GAGTCGCGCA	GCTTGTTGAC	7020
CAGCTCGGCG	GTGACCTGCA	CGTCTAGGGC	GCAGTAGTCC	AGGGTTTCCT	TGATGATGTC	7080
ATACTTATCC	TGTCCCTTTT	TTTCCACAG	CTCGCGGTTG	AGGACAAACT	CTTCGCGGTC	7140
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GTACTGGTAT	TTGAAGTCAG	TGTCGTCGCA	TCCGCCCTGC	TCCCAGAGCA	AAAAGTCCGT	7380
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AATTACCTGG	GCGGCGAGCA	CGATCTCGTC	AAAGCCGTTG	ATGTTGTGGC	CCACAATGTA	7560
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GTGAAAGTAG	AAGTCCCTGC	GACGGGCCGA	AACTCTGTGC	TGGCTTTTGT	AAAAACGTGC	8100
GCAGTACTGG	CAGCGGTGCA	CGGGCTGTAC	ATCCTGCACG	AGGTTGACCT	GACGACCGCG	8160
CACAAGGAAG	CAGAGTGGGA	ATTTGAGCCC	CTCGCCTGGC	GGGTTTGGCT	GGTGGTCTTC	8220
TACTTCGGCT	GCTTGTCTTT	GACCGTCTGG	CTGCTCGAGG	GGAGTTACGG	TGGATCGGAC	8280
CACCACGCCG	CGCGAGCCCA	AAGTCCAGAT	GTCCGCGCGC	GGCGGTCTGG	GCTTGATGAC	8340
AACATCGCGC	AGATGGGAGC	TGTCCATGGT	CTGGAGCTCC	CGCGGCGTCA	GGTCAGGCGG	8400

GAGCTCCTGC	AGGTTTACCT	CGCATAGACG	GGTCAGGGCG	CGGGCTAGAT	CCAGGTGATA	8460
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CGGATGAGCT	CGGCGACAGT	GTCGCGCACC	TCGCGCTCAA	AGGCTACAGG	GGCCTCTTCT	9360
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GACCTGAGCG	AGTCCGCATC	GACCGGATCG	GAAAACCTCT	CGAGAAAGGC	GTCTAACCAG	9720
TCACAGTCGC	AAGGTAGGCT	GAGCACCGTG	GCGGGCGGCA	GCGGGCGGCG	GTCGGGGTTG	9780
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GTCGACAGAA	GCACCATGTC	CTTGGGTCCG	GCCTGCTGAA	TGCGCAGGCG	GTCGGCCATG	9900
CCCCAGGCTT	CGTTTTGACA	TCGGCGCAGG	TCTTTGTAGT	AGTCTTGCA	GAGCCTTTCT	9960
ACCGGCACTT	CTTCTTCTCC	TTCCTCTTGT	CCTGCATCTC	TTGCATCTAT	CGCTGCGGCG	10020
GCGGCGGAGT	TTGGCCGTAG	GTGGCGCCCT	CTTCCTCCCA	TGCGTGTGAC	CCCGAAGCCC	10080
CTCATCGGCT	GAAGCAGGGC	TAGGTCGGCG	ACAACGCGCT	CGGCTAATAT	GGCCTGCTGC	10140
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CAGCGTAGGG	TGGCCGGGGC	TCCGGGGGCG	AGATCTTCCA	ACATAAGGCG	ATGATATCCG	10440
TAGATGTACC	TGGACATCCA	GGTGATGCCG	GCGGCGGTGG	TGGAGGCGCG	CGGAAAGTCG	10500
CGGACGCGGT	TCCAGATGTT	GCGCAGCGGC	AAAAAGTGCT	CCATGGTCGG	GACGCTCTGG	10560
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GGCACTCTTC	CGTGGTCTGG	TGGATAAATT	CGCAAGGGTA	TCATGGCGGA	CGACCGGGGT	10680
TCGAGCCCCG	TATCCGGCCG	TCCGCCGTGA	TCCATGCGGT	TACCGCCCCG	GTGTCGAACC	10740
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GCTGCTGCGC	TAGCTTTTTT	GGCCACTGGC	CGCGCGCAGC	GTAAGCGGTT	AGGCTGGAAA	10860
GCGAAAGCAT	TAAGTGGCTC	GCTCCCTGTA	GCCGGAGGGT	TATTTTCCAA	GGGTTGAGTC	10920
GCGGGACCCC	CGGTTTCGAGT	CTCGGACCGG	CCGGACTGCG	GCGAACGGGG	GTTTGCCTCC	10980
CCGTCATGCA	AGACCCCGCT	TGCAAATTCC	TCCGGAAACA	GGGACGAGCC	CCTTTTTTGC	11040
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CAAGAGCAGC	GGCAGACATG	CAGGGCACCC	TCCCCTCCTC	CTACCGCGTC	AGGAGGGGCG	11160
ACATCCGCGG	TTGACGCGGC	AGCAGATGGT	GATTACGAAC	CCCCGCGGCG	CCGGGCCCCG	11220
CACTACCTGG	ACTTGAGGA	GGGCGAGGGC	CTGGCGCGGC	TAGGAGCGCC	CTCTCCTGAG	11280
CGGTACCCAA	GGGTGCAGCT	GAAGCGTGAT	ACGCGTGAGG	CGTACGTGCC	GCGGCAGAAC	11340
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GTGCAGCACA	GCAGGGACAA	CGAGGCATTC	AGGGATGCGC	TGCTAAACAT	AGTAGAGCCC	11760
GAGGGCCGCT	GGCTGCTCGA	TTTGATAAAC	ATCCTGCAGA	GCATAGTGGT	GCAGGAGCGC	11820
AGCTTGAGCC	TGGCTGACAA	GGTGGCCGCC	ATCAACTATT	CCATGCTTAG	CCTGGGCAAG	11880
TTTTACGCCC	GCAAGATATA	CCATACCCCT	TACGTTCCCA	TAGACAAGGA	GGTAAAGATC	11940
GAGGGGTTCT	ACATGCGCAT	GGCGCTGAAG	GTGCTTACCT	TGAGCGACGA	CCTGGGCGTT	12000
TATCGCAACG	AGCGCATCCA	CAAGGCCGTG	AGCGTGAGCC	GGCGGCGCGA	GCTCAGCGAC	12060
CGCGAGCTGA	TGCACAGCCT	GCAAAGGGCC	CTGGCTGGCA	CGGGCAGCGG	CGATAGAGAG	12120

GCCGAGTCCT	ACTTTGACGC	GGGCGCTGAC	CTGCGCTGGG	CCCCAAGCCG	ACGCGCCCTG	12180
GAGGCAGCTG	GGGCCGGACC	TGGGCTGGCG	GTGGCACCCG	CGCGCGCTGG	CAACGTCGGC	12240
GGCGTGAGG	AATATGACGA	GGACGATGAG	TACGAGCCAG	AGGACGGCGA	GTACTAAGCG	12300
GTGATGTTTC	TGATCAGATG	ATGCAAGACG	CAACGGACCC	GGCGGTGCGG	GCGGCGCTGC	12360
AGAGCCAGCC	GTCCGGCCTT	AACTCCACGG	ACGACTGGCG	CCAGGTCATG	GACCGCATCA	12420
TGTCGCTGAC	TGCGCGCAAT	CCTGACGCGT	TCCGGCAGCA	GCCGCAGGCC	AACCGGCTCT	12480
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GTCACTTGCT	GACACTGTAC	CGCGAGGCCA	TAGGTCAGGC	GCATGTGGAC	GAGCATACTT	13140
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GGTCTACTGG	AGTGTCACCT	TCGCTGCAAC	CTATGCACCC	CGCACCGCTC	CCTGGTTTGC	25800
AATTCGCAGC	TGCTTAACGA	AAGTCAAATT	ATCGGTACCT	TTGAGCTGCA	GGGTCCCTCG	25860
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CAATCCCGCC	CGCCAAATGC	GGAGCTTACC	GCCTGCGTCA	TTACCCAGGG	CCACATTCTT	26040
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